

Attorney's Docket No. 035800/204489(5800-28A)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Robison *et al.* Group Art Unit: 1655
Appl. No.: 09/668,266 Examiner: B. Sisson
Filed: September 22, 2000
For: 22025, A NOVEL HUMAN CYCLIC NUCLEOTIDE PHOSPHODIESTERASE

February 12, 2001

Assistant Commissioner for Patents
Washington, DC 20231

g/s
1.0.0
3/9/01

PRELIMINARY AMENDMENT

Dear Sir:

Please amend the above-identified application as follows:

In the Specification:

Please revise the first full paragraph on page 1 to read as follows:

A1 This application is a divisional of U.S. Patent Application Serial No. 09/330,970 filed on June 11, 1999, now U.S. Patent No. 6,146,876.

Please revise the paragraph beginning at the bottom of page 7 to read as follows:

A2 **Figure 2** shows a comparison of the long phosphodiesterase against the Prosite database of protein patterns, specifically showing a high score against the 3' 5' cyclic nucleotide phosphodiesterase Family 7 (SEQ ID NO:5). The underlined area shows a phosphodiesterase signature.

Please revise the second full paragraph on page 8 to read as follows:

A3 **Figure 4** shows a hydrophobicity plot of the long phosphodiesterase (SEQ ID NO:1).



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Please revise the third full paragraph beginning on page 8 to read as follows:

AK

Figure 5 shows an analysis of the long phosphodiesterase open reading frame (SEQ ID NO:1) for amino acids corresponding to specific functional sites. Glycosylation sites are found from about amino acid 107 to about amino acid 110, from about amino acid 290 to about amino acid 293, and from about amino acid 447 to about amino acid 450. A glycosaminoglycan attachment site is found from about amino acid 479 to about amino acid 482. Cyclic AMP and cyclic GMP-dependent protein kinase phosphorylation sites are found from about amino acid 15 to about amino acid 18 and from about amino acid 94 to about amino acid 97. Protein kinase C phosphorylation sites are found from about amino acid 117 to about amino acid 119 and from about amino acid 390 to about amino acid 392. Casein kinase II phosphorylation sites are found from about amino acid 18 to about amino acid 21, from about amino acid 56 to about amino acid 59, from about amino acid 251 to about amino acid 254, from about amino acid 292 to about amino acid 295, from about amino acid 449 to about amino acid 452, from about amino acid 481 to about amino acid 484, and from about amino acid 492 to about amino acid 495. A tyrosine kinase phosphorylation site is found from about amino acid 392 to about amino acid 398. N-myristoylation sites are found from about amino acid 22 to about amino acid 27, from about amino acid 29 to about amino acid 34, from about amino acid 67 to about amino acid 72, from about amino acid 258 to about amino acid 263, and from about amino acid 477 to about amino acid 482. An amidation site is found from about amino acid 13 to about amino acid 16. In addition, amino acids corresponding to the phosphodiesterase signature, HDXXHXX, are found in the sequence HDVDHPG at amino acids 265-271.

Please revise the second full paragraph on page 9 to read as follows:

AS

Figure 7 shows a comparison of the short phosphodiesterase against the Prosite database of protein patterns, specifically showing a high score against the 3' 5' cyclic nucleotide phosphodiesterase Family 7 (SEQ ID NO:6). The underlined area shows a phosphodiesterase signature.



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Please revise the third full paragraph on page 9 to read as follows:

64 **Figure 8** shows a hydrophobicity plot of the short phosphodiesterase (SEQ ID NO:3).

Please revise the last full paragraph on page 9 to read as follows:

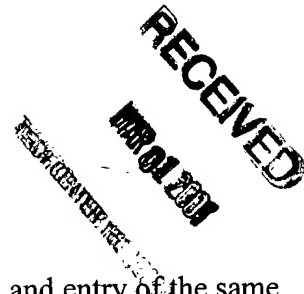
67 **Figure 9** shows an analysis of the short phosphodiesterase open reading frame SEQ ID NO:3) for amino acids corresponding to specific functional sites. Glycosylation sites are found from about amino acid 107 to about amino acid 110 and from about amino acid 290 to about amino acid 293. Cyclic AMP and cyclic GMP-dependent protein kinase phosphorylation sites are found from about amino acid 15 to about amino acid 18 and from about amino acid 94 to about amino acid 97. Protein kinase C phosphorylation sites are found from about amino acid 117 to about amino acid 119. Casein kinase II phosphorylation sites are found from about amino acid 18 to about amino acid 21, from about amino acid 56 to about amino acid 59, from about amino acid 251 to about amino acid 254, and from about amino acid 292 to about amino acid 295. N-myristoylation sites are found from about amino acid 22 to about amino acid 27, from about amino acid 29 to about amino acid 34, from about amino acid 67 to about amino acid 72, from about amino acid 258 to about amino acid 263, and an amidation site is found from about amino acid 13 to about amino acid 16. In addition, amino acids corresponding to the phosphodiesterase signature, HDXXHXX, are found in the sequence HDVDHPG at amino acids 265-271.

REMARKS

The foregoing amendments to the specification are fully supported in the specification and claims as originally filed. Accordingly, the foregoing amendments to the specification do not add new matter; their entry is therefore respectfully requested.

Applicants believe that the present application is now in condition for examination. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

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Prompt and favorable consideration of the foregoing amendments, and entry of the same into the present application, are respectfully requested.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

Kathryn L. Coulter

Kathryn L. Coulter
Registration No. 45,889

ALSTON & BIRD LLP Post Office Drawer 34009 Charlotte, NC 28234 Tel Raleigh Office (919) 420-2200 Fax Raleigh Office (919) 420-2260	CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner For Patents, Washington, DC 20231, on February 12, 2001. <i>Nora C. Martinez</i> Nora C. Martinez
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